

广西石灰岩地区新植物

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New plants from limestone regions of Guangxi, China

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Key words *Daphne pachyphylla* D. Fang; *Ficus periptera* D. Fang et D. H. Qin; *F. periptera* var. *hirsutula* D. Fang et D. H. Qin; *Chionanthus verruculatus* D. Fang; *Tripterospermum brevilobum* D. Fang; New taxa; Limestone regions of Guangxi; China

关键词 厚叶瑞香; 翅托榕; 毛翅托榕; 疣叶流苏树; 短裂双蝴蝶; 新分类群; 广西石灰岩地区; 中国

1 厚叶瑞香 新种 图 1: 1~2

Daphne pachyphylla D. Fang, sp. nov. Fig. 1: 1~2

A *D. xichouensi* H. F. Zhou ex C. Y. Chang foliorum laminis coriaceis vel crasse coriaceis saepe inaequilateris sicco supra rugosis subtus subbrunnescentibus juventute margine dense ciliatis, bracteis majoribus 10~16 mm longis eciliatis, calycis lobis anguste ovatis extus pilis sparsis adpressis vestitis, disco integro recedit.

Frutex sempervirens, ca. 0.7 m altus. Caulis erectus, teres, cicatricibus obreniformibus sparsis tectus, apice trifurcatoramifer, cum ramis cinereo-nigrescens, tenuiter striatus. Rami robusti, 3.5~4 mm crassi, prope apicem plus minusve brunneolo-adpresso-hirsutuli. Folia alterna; laminae coriaceae vel crasse coriaceae, anguste oblongo-ellipticae raro anguste obovatae vel oblanceolatae, 5~11.2 cm longae, (1~) 1.5~3.8 cm latae, saepe inaequilatae, apice acutae vel obtusiusculae, basi cuneatae decurrentes, margine integrae revolutae, juventute dense ciliatae, apice coma instructae, cetero fere glabrae mox omnino glabrae, supra rugosae, subtus subbrunnescentes, costa robusta usque ad apicem supra impressa subtus prominenti, nervis lateralibus utrinsecus 5~9 supra impressis subtus inconspicuis; petioli robusti, 2~5 mm longi, alati, glabri. Capitulum terminale raro in axilla folii supra ramum, ca. 5~15-florum; pedunculus 0~12 mm longus, dense ferrugineo-hirsutus; bractae anguste oblanceolatae raro anguste ellipticae, 10~16 mm longae, 2.5~3.5 mm latae, sicco nigrescentes, apice acutae raro obtusae et coma instructae, cetero glabrae. Flores albi, fere sessiles. Calyx subtubularis, intus glaber, tubo ca. 8 mm longo, fauce ca. 3 mm diam., extus dense brunneolo-adpresso-hirsutulo, lobis 4 anguste ovatis ca. 4 mm longis 1~2 mm latis apice acuminatis vel acutis extus sparse brunneolo-adpresso-hirsutulis. Stamina 8, biseriata, superiora ad faucem tubi calycis, exserta, inferiora prope medium tubi inserta, inclusa, filamentis ca. 0.5 mm longis, antheris oblongis 1.5 mm longis. Discus cupulatus, ca. 0.5 mm altus, glaber, integer et truncatus. Pistillum glabrum; ovarium ellipsoideum ca. 1.5 mm longum et 0.7 mm diam., stipite ca. 0.5 mm longo, stylo ca. 0.3 mm longo, stigmate capitato. Fructus non visus. Fl. Mar.

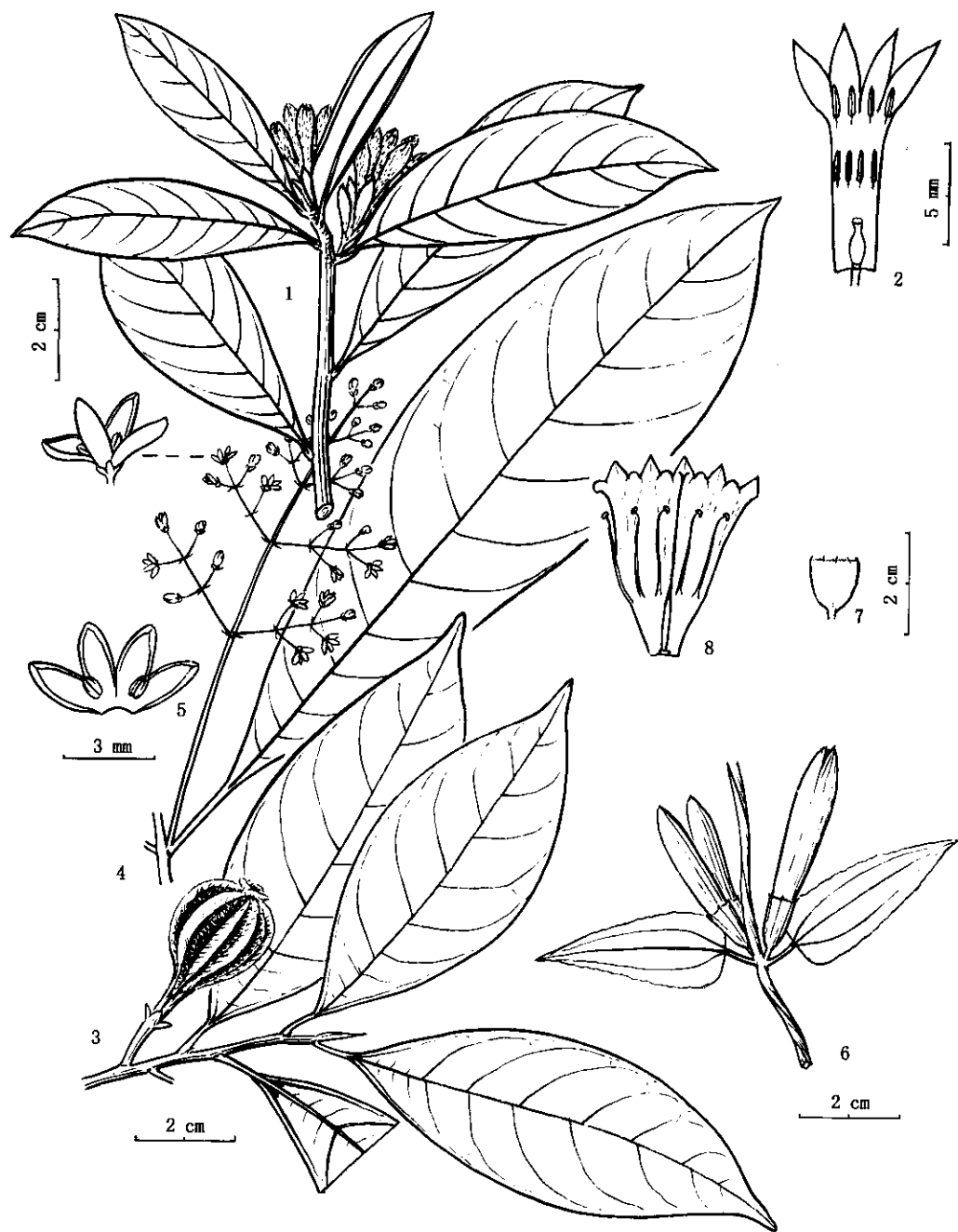


图1 1~2. 厚叶瑞香 1.花枝; 2.花萼剖开示雄蕊和雌蕊。3. 翅托榕 3.果枝。4~5. 痒叶流苏树 4. 叶和花序; 5. 花冠剖开示雄蕊。6~8. 短裂双蝴蝶 6. 部分花枝; 7. 花萼剖开; 8. 花冠剖开示雄蕊和雌蕊。(廖信佩 绘)

Fig. 1 1~2. *Daphne pachyphylla* D. Fang 1. Flowering branch; 2. Calyx opened with stamens and pistil. 3. *Ficus periptera* D. Fang et D. H. Qin 3. Fruiting branch. 4~5. *Chionanthus verruculatus* D. Fang 4. A leaf and a inflorescence; 5. Corolla opened with stamens. 6~8. *Tripterospermum brevilobum* D. Fang 6. Part of flowering branch; 7. Calyx opened; 8. Corolla opened with stamens and pistil.

China. Guangxi (广西): Napo (那坡), Guoba (果把), limestone hill, in forests, rare, alt. 1230 m, 1976-02-05, D. Fang & D. Y. Liu (方鼎, 刘达雨) 22185 (holotype, here designated, GXMI).

常绿灌木, 高约 0.7 m。茎直立, 圆柱形, 有稀疏的倒肾形叶痕, 先端三叉分枝, 连同枝变灰黑色, 具细纵条纹; 枝粗壮, 粗 3.5~4 mm, 枝梢多少被浅棕色贴伏的小硬毛。叶互生; 叶片革质至厚革质, 狭长圆状椭圆形, 稀狭倒卵形至倒披针形, 长 5~11.2 cm, 宽 (1~) 1.5~3.8 cm, 常不等侧, 先端急尖或稍钝, 基部楔形而下延, 边全缘, 背卷, 幼时密被睫毛, 先端有一撮毛, 其余几乎无毛, 不久均变无毛, 上面具皱纹, 下面变浅棕色, 中脉粗壮, 直达顶端, 上面凹, 下面隆起, 侧脉每边 5~9 条, 上面凹, 下面不明显; 叶柄粗壮, 长 2~5 mm, 具翅, 无毛。头状花序顶生, 稀在枝的上部叶腋, 约有 5~15 朵花; 总花梗长 0~12 mm, 密被锈色小硬毛; 苞片狭倒披针形, 稀狭椭圆形, 长 10~16 mm, 宽 2.5~3.5 mm, 干时变黑色, 先端急尖稀钝, 并被一撮毛, 其余无毛。花白色, 几乎无梗。花萼近管状, 内面无毛, 管长约 8 mm, 外面密被浅棕色贴伏的小硬毛, 喉部径约 3 mm, 裂片 4, 狭卵形, 长约 4 mm, 宽约 1~2 mm, 先端渐尖至急尖, 外面疏被浅棕色贴伏的小硬毛。雄蕊 8 枚, 排成两轮, 上轮生于萼管的喉部, 外露, 下轮生于萼管近中部, 内藏, 花丝长约 0.5 mm, 花药长圆形, 长 1.5 mm。花盘环状, 高约 0.5 mm, 无毛, 全缘而截平。雌蕊无毛; 子房椭圆形, 长约 1.5 mm, 径约 0.7 mm, 具长约 0.5 mm 的子房柄, 花柱长约 0.3 mm, 柱头头状。果实未见。花期 3 月。

本种叶片革质至厚革质, 常不等侧, 干时上面具皱纹, 下面变浅棕色, 幼时密被睫毛; 苞片较大, 长 10~16 mm, 无睫毛; 萼裂片狭卵形, 外被疏伏毛; 花盘全缘, 而与西畴瑞香 *D. xichouensis* H. F. Zhou ex C. Y. Chang 不同。

2 翅托榕 新种 图 1: 3

Ficus periptera D. Fang et D. H. Qin, sp. nov. (Sect. *Ficus*). Fig. 1: 3

2a var. *periptera*

F. ischnopodae Miq. affinis, quae differt foliorum laminis elliptico-lanceolatis vel oblanceolatis, receptaculo cylindrico vel conoideo minore usque ad 2 (~ 3) cm longo et 8 (~ 10) mm diam. longitudinaliter costato.

Arbor ca. 5~6 m alta, praeter petiolos cetero glabra. Ramuli 1~2 mm crassi. Folia alterna, saepe prope apicem ramuli orta; laminae crasse chartaceae, ellipticae, 6.5~10 cm longae, 2.5~3.5 cm latae, apice subito breviter acuminatae, acumine obtuso, basi cuneatae, integrae, in utroque latere interdum subasymmetricae, supra olivaceae, subtus subfusco-virides et cystolithis puncticulatis densis praeditae, nervis lateralibus utrinsecus 6~10 cum costa subtus prominulis, basalibus brevibus subtus in quoque axilla glandula subferruginea obsitis; petioli 5~11 mm longi, anguste canaliculati, saepe glabri raro supra sparse hirsutuli; stipulae tenuiter chartaceae, anguste subtriangulatae, 9~11 mm longae, ciliolatae, flavo-virentes, caducae. Receptaculum solitarium in axilla folii ramuli, maturitate flavidum, late obovoideum vel pyriforme, 2.5~3.5 cm longum, 1.6~1.9 cm diam., circa corpus receptaculi carinis vel alis longitudinalibus 6~13 in medio latioribus (usque ad 3 (~ 4) mm) utroque angustatis ornatum, inferne in stipitem 7~10 mm longum decrescens, sclerocellulis nullis; bracteae ostioli umbonatae, 2 mm longae et 3 mm latae; bracteae basales 3, late ovatae, 3 mm longae et 2.5 mm latae, ciliolatae, persistentes; pedunculus 7~13 mm longus, plus minusve trigonus, saepe apicem versus crassiusculus. Flores masculi prope osti-

olum dispositi, vix 4 mm longi, pedicellis 1.5 mm longis, tepalis 4 oblanceolatis 2 mm longis purpureis, staminibus 2 (~ 3), filamentis brevibus, antheris suboblongis. Flores cecidiophori 3 mm longi, pedicellati, tepalis 4 suboblanceolatis ca. 1.8 mm longis purpureis, ovario subgloboso stipite 0.5 mm longo, stylo brevi laterali, stigmati simplici.

China. Guangxi (广西): Napo(那坡), Baidu(百都), Nonghua(弄化), limestone hill, in forests, rare, alt. ca. 1000 m, 1985-07-13, D. Fang & D. H. Qin (方鼎, 覃德海) 79648 (holotype, here designated, GXMI).

乔木, 高约 5~6 m, 除叶柄外其余无毛。小枝粗 1~2 mm。叶互生, 常着生于近枝梢; 叶片厚纸质, 椭圆形, 长 6.5~10 cm, 宽 2.5~3.5 cm, 先端骤短渐尖, 尖头钝, 基部楔形, 全缘, 两侧有时稍不对称, 上面橄榄绿色, 下面浅棕绿色, 密布细点状钟乳体, 侧脉每边 6~10 条, 连同中脉在下面稍隆起; 基生侧脉短, 背面脉腋各有 1 枚近锈色腺体; 叶柄长 5~11 mm, 具狭槽, 通常无毛, 稀在腹面散生小硬毛; 托叶薄纸质, 近狭三角形, 长 9~11 mm, 被小睫毛, 早落。榕果单生于小枝的叶腋, 成熟时淡黄色, 阔倒卵球形至梨形, 长 2.5~3.5 cm, 直径 1.6~1.9 cm, 周围具 6~13 枚中间较宽[达 3(~4) mm]两端变狭的纵向龙骨状突起或翅, 下部狭缩成长 7~10 mm 的柄状, 无石细胞; 口部苞片脐状, 长 2 mm, 宽 3 mm; 基生苞片 3, 阔卵形, 长 3 mm, 宽 2.5 mm, 被小睫毛, 宿存; 花序梗长 7~13 mm, 多少三棱形, 常向先端稍增粗。雄花生于近口部, 长不足 4 mm; 花梗长 1.5 mm; 花被片 4, 倒披针形, 长 2 mm, 暗红色; 雄蕊 2(~3); 花丝短; 花药近长圆形, 长 1 mm。瘦花长 3 mm, 具梗; 花被片 4, 近倒披针形, 长约 1.8 mm, 暗红色; 子房近球形, 具长 0.5 mm 的柄; 花柱短, 侧生; 柱头单一。

本种与壶托榕 *F. ischnopoda* Miq. 接近, 但后者叶片椭圆状披针形至倒披针形; 榕果圆柱形或圆锥状, 较小, 长达 2(~3) cm, 径达 8(~10) mm, 具纵棱。

2b 毛翅托榕 新变种

var. *hirsutula* D. Fang et D. H. Qin, var. nov.

A. var. *periptera* ramulis juventute, petiolis, foliorum laminis, pedunculis, receptaculis extus, bracteis basalibus et interdum stipulis plus minusve omnibus hirsutulis tectis, receptaculis cum pedunculis ferrugineo-glanduloso-puberulis mixtis recedit.

China. Guangxi (广西): Napo(那坡), Baidu(百都), Nonghua(弄化), limestone hill, in forests, rare, alt. 1200 m, 1981-04-22, D. Fang, D. H. Qin & Z. G. Wang (方鼎, 覃德海, 王振刚) 22390 (holotype, here designated, GXMI).

与原变种 var. *periptera* 的区别在于嫩枝、叶柄、叶片、花序梗、榕果、基生苞片和有时托叶的外面多少皆被小硬毛, 榕果和花序梗混生锈色腺状微毛。

3 疣叶流苏树 新种 图 1: 4~5

Chionanthus verruculatus D. Fang, sp. nov. Fig. 1: 4~5

Affinis *C. henryano* P. S. Green, qui ramulis juventute leviter pubescentibus, foliorum laminis majoribus 16~33 cm longis 4~12.5 cm latis in sicco utrinque non verruculatis, petiolis 2.5~4 cm longis, panícula cum pedunculo pilosa, floribus subsessilibus, calycibus pubescentibus differt.

Frutex ca. 3 m altus. Ramus subteres, interdum inconspicue striatus, glaber; ramulus juven-

tute subcompressus, cum petiolo, lamina foliorum subtus inferne et costa sub lente trichomatibus peltiformibus albidis mox sensim deciduis vestitus. Folia opposita, interdum inaequimagna, glabra; laminae coriaceae, oblanceolatae usque anguste oblongo-ellipticae, 7.5 ~ 15 cm longae, 1.5 ~ 5 cm latae, apice subito breviter acuminatae raro emarginatae, basi cuneatae decurrentes interdum asymmetricae, integrae, in excreto sicco utrinque cum petiolis dense verruculatae, costa supra leviter impressa subtus prominenti, nervis lateralibus utrinsecus (7 ~)10 ~ 14 supra complanatis subtus prominulis; petioli ca. 1 ~ 2.5 cm longi, supra canaliculati, leviter alati. Panicula axillaris, cum pedunculo (3.5 ~ 5.5 cm longo) 8 ~ 13.5 cm longa, gracilis, glabra; bracteae ovatae vel anguste ovatae, ca. 0.6 ~ 2 mm longae, ciliolatae; pedicelli 2 ~ 6 mm longi. Flores laxi. Calyx parvus, utrinque glaber, lobis 4 triangulato-ovatis vel late ovatis 0.5 ~ 0.8 mm longis ciliolatis. Corolla alba, glabra, 3.5 ~ 4 mm longa, 4-partita, lobis suboblongis in utroque latere inflexis 2.5 ~ 3 mm longis 1 ~ 1.3 mm latis apice cucullatis et saepe obtusis basi leviter connatis. Stamina 2, filamentis inconspicuis, antheris oblongis ca. 1 ~ 1.2 mm longis. Ovarium ovoideum vix 1 mm longum, stylo 0.3 mm longo 4-acutangulo, stigmatibus leviter 2-lobato. Fructus non visus. Fl. Sept.

China. Guangxi(广西): Napo(那坡), Baidu(百都), Nonghua(弄化), limestone hill, in forests, rare, alt. 1030 m, 1983-09-16, D. Fang, G. X. Huang & G. Lin (方鼎, 黄桂兴, 林刚) 25248 (holotype, here designated, GXMI).

灌木, 高约 3 m。枝近圆柱形, 有时具不明显的纵条纹, 无毛; 嫩枝稍扁, 连同叶柄、叶背下部和中脉在放大镜下可见有带白色的盾形毛状体, 不久渐脱落。叶对生, 有时不等大, 无毛; 叶片革质, 倒披针形至狭长圆状椭圆形, 长 7.5 ~ 15 cm, 宽 1.5 ~ 5 cm, 先端骤短尖, 稀微缺, 基部楔形, 下延, 有时不对称, 全缘, 成长叶干时两面连同叶柄密布细疣突, 中脉上面稍凹, 下面隆起, 侧脉每边 (7 ~)10 ~ 14 条, 上面扁平, 下面稍隆起; 叶柄长约 1 ~ 2.5 cm, 上面具槽, 稍有翅。圆锥花序腋生, 连同花序梗 (长 3.5 ~ 5.5 cm) 长 8 ~ 13.5 cm, 纤细无毛; 苞片卵形至狭卵形, 长约 0.6 ~ 2 mm, 被小睫毛; 花梗长 2 ~ 6 mm。花疏散。花萼小, 两面无毛, 裂片 4, 三角状卵形至阔卵形, 长 0.5 ~ 0.8 mm, 被小睫毛。花冠白色, 长 3.5 ~ 4 mm, 4 深裂, 裂片近长圆形, 两侧内折, 长 2.5 ~ 3 mm, 宽 1 ~ 1.3 mm, 先端兜状, 通常钝, 基部稍合生。雄蕊 2 枚, 花丝不明显, 花药长圆形, 长约 1 ~ 1.2 mm。子房卵球形, 长不到 1 mm, 花柱长 0.3 mm, 具 4 棱, 柱头微 2 裂。果实未见。花期 9 月。

本种与李榄 *C. henryanus* P. S. Green 相近, 但后者嫩枝稍被短柔毛; 叶大, 长 16 ~ 33 cm, 宽 4 ~ 12.5 cm, 干时两面无疣突; 叶柄长 2.5 ~ 4 cm; 圆锥花序和花序梗被疏柔毛; 花近无梗; 花萼被短柔毛。

4 短裂双蝴蝶 新种 图 1: 6 ~ 8

Tripterosperrum brevilobum D. Fang, sp. nov. Fig. 1: 6 ~ 8

Fortasse affine *T. australi* J. Murata, quod foliorum laminis ovato-lanceolatis, inflorescentia 2 ~ 5-flora, bracteolis ca. 2 ~ 6 mm longis, calycis tubo alato, lobis subulatis conspicue patentibus ca. 6 ~ 10 (~ 20) mm longis, corollae lobis 7 ~ 9 mm longis differt.

Herba perennis, ubique glabra. Caulis torsivus et volubilis, subtetragonus, tenuiter striatus. Folia ad caulem opposita; laminae chartaceae, anguste ovato-triangularae, (1 ~) 1.8 ~ 4.4 cm longae, (0.4 ~) 0.7 ~ 2 cm latae, apice acuminatae, basi subtruncatae rotundae vel subcordatae, margine anguste membranaceae plus minusve erosulae ex parte irregulatum revolutae, supra fusco-

virides, subtus pallidae, nervis 3~5, subtus prominulis; petioli 4~12 mm longi, anguste alati. Flores 1~2 axillares; pedicelli 2~4 mm longi; bracteolae 1~2-jugae, ovatae raro oblongae vel obovatae, 1~3 mm longae. Calyx anguste campanulatus, tubo 9 mm longo exalato inconspicue 5-striato, ore 4~4.5 mm diam., lobis 5 subtriangulato-subulatis vel breviter linearibus subincurvatis 0.5~2 mm longis, sinibus truncatis. Corolla lilacina, anguste campanulata, 4 cm longa, lobis 5 subtriangulatis 4~5 mm longis basi 4 mm latis apice attenuatis, plicis semiorbiculatis 1.5 mm longis et 4 mm latis margine integris vel undulatis. Stamina 5, 12 mm supra corollae basin inserta, filamentis linearibus 17 mm longis apice curvis, antheris ellipticis 1.5 mm longis. Discus annulatus, 1 mm altus, 2 mm latus, subundulato-quinquelobatus. Pistillum 3.5 cm longum; ovarium oblongum ca. 10 mm longum, stipite inconspicuo usque ad 3 mm longo, stylo 21 mm longo, stigmatibus 2-lobato, lobis linearibus 2 mm longis reflexis. Fructus ignotus. Fl. Oct.

China. Guangxi(广西): Napo(那坡), Baidu(百都), Nonghua(弄化), limestone hill, in forests, rare, alt. 1200 m, 1977-10-11, D. Fang *et al.* (方鼎等) 3-1340 (holotype, GXMI, here designated).

多年生草本,无毛。茎螺旋状扭转而缠绕,近四角形,具细纵条纹。叶在茎上对生;叶片纸质,狭卵状三角形,长(1~)1.8~4.4 cm,宽(0.4~)0.7~2 cm,先端渐尖,基部近截平、圆形或浅心形,边缘狭膜质,多少细啮蚀状,部分不规则的背卷,上面棕绿色,下面淡,叶脉3~5条,在下面稍隆起;叶柄长4~12 mm,具狭翅。花1~2朵腋生;花梗长2~4 mm;小苞片1~2对,卵形,稀长圆形或倒卵形,长1~3 mm。花萼狭钟状,管长9 mm,无翅,具5条不明显的线纹,口部直径4~4.5 mm,裂片5,近三角状钻形或短线形,稍内弯,长0.5~2 mm;弯缺截平。花冠淡紫色,狭钟状,长4 cm,裂片5,近三角形,长4~5 mm,基部宽4 mm,先端渐狭;褶半圆形,长1.5 mm,宽4 mm,边缘全缘或波状。雄蕊5,贴生于花冠基部之上12 mm处,花丝线形,长17 mm,先端弯,花药椭圆形,长1.5 mm。花盘环状,高1 mm,宽2 mm,近波状5浅裂。雌蕊长3.5 cm;子房长圆形,长约10 mm,柄不明显,长达3 mm,花柱长21 mm,柱头2浅裂,裂片线形,长2 mm,外弯。果实未见。花期10月。

本种可能与南方双蝴蝶 *T. australe* J. Murata 相近,但后者叶片卵状披针形;花序具2~5花;小苞片长约2~6 mm;萼管具翅,裂片钻形,明显开展,长约6~10(~20) mm;花冠裂片长7~9 mm。

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